SESSIONAL PAPER No. 17 of 1948.

ZANZIBAR PROTECTORATE

LEGISLATIVE COUNCIL

Memorandum on the General Progress of Development and Welfare Schemes for the period 1st November, 1947, to the 31st October, 1948.

Laid before the Legislative Council by Order of His Excellency the British Resident.

The general progress of the development and welfare schemes during the period under review has on the whole been satisfactory.

2. In some cases through lack of staff it has not been possible to commence a project, or if the project has been started its progress has been considerably slowed down through inadequate staff. This is especially noticeable in the Agricultural Development Programme, where the lack of Makerere trained Assistant Agricultural Officers was a serious factor in holding back the advance of the Development Scheme. The higher wages paid on the mainland have naturally attracted much of the skilled labour from Zanzibar, and the dearth of carpenters and masons created an ever-increasing problem, and one which is unlikely to be solved in the near future.

3. As regards the quantity of materials available this difficulty has been largely overcome and materials are now coming forward more rapidly than previously; provided an even flow continues they should prove sufficient.

AGRICULTURE.

4. Two experimental sub-stations have been established, one in Zanzibar at Hanyegwa Mchana and the other in Pemba at Matangatwani, and in addition five demonstration plots at Kisongoni, Muungoni, Weni, Ole and Chambaani. During the period under review much of the work has been devoted to the survey and acquisition of suitable sites for both these stations and the erection of essential buildings on them. Buildings for staff, including houses for Assistant Agricultural and Assistant Veterinary Officers, are well advanced at both sub-stations, and the essential walling against the depredations of wild pigs has been completed. The construction of buildings to house processing machinery has been postphoned, except at Kizimbani and Selem, because although the machinery has been on order in the United Kingdom for nearly 18 months delivery is not expected for another year. The rice mill and engine at Kizimbani have now been installed, but are not yet in use.

5. Considerable progress has been made with the testing and development of various crops. Demonstrations of improved rice varieties and methods of rice cultivation, including irrigation, have been given at Kizimbani, Kisongoni, Matangatwani, Limbani and Ole. There have also been several manurials and variety trials and time-of-planting trials. Vegetable growing demonstrations have been made at Weni in Pemba, and the site for a 20-acre station in Zanzibar has been selected. The development of fruit growing has taken the form of greatly increased activity in citrus production in both islands and some 15,000 budded citrus trees will be available in the coming planting season. Varietal collections of bananas have been established at most of the demonstration stations. Tobacco has been grown successfully at two stations in Zanzibar and new varieties are under trial.

6. Particular promise has been shown by the Bule variety of Criollo Cocoa at Mataupatwani in Pemba where plants established in May 1946 have already fruited and supplied seeds to the nursery. During the planting season 3,125 seedlings of this type were planted on the Government plantations at Selem and Mlangoni in Zanzibar and 140 at Makondeni in Pemba. At Selem and at a few privately owned plantations plants of Dunga Criollo are doing well, but it must be recorded that on certain soils, notably the heavy red ones, as also where care and attention has not been sufficient Dunga Criollo Cocoa has been disappointing. Much better results, however, have been recorded this year from the successful rooting of Criollo cuttings. The budding of Criollo varieties on Forastero stocks has also been accelerated. Regular monthly visits were paid to the plantings of private owners who were given practical advice. Those who were prepared to pay the costs were provided with trained labour. At Kizimbani small quantities of Forastero stocks were again budded using Criollo budwood, and over thirty young Criollo plants have been grown from cuttings. The experience gained in the technique of carrying out these operations will be of great value should the use of clonal plantings prove to be advantageous.

7. Good crops of Sorghum especially the dwarf variety have been grown, and a manurial trial undertaken on *uwanda* soil. Development work with oil-palms and cashew has been slower; cashew has grown very poorly under *uwanda* conditions, but very well on the sandy soils of Pemba. Papain production does not seem to attract the local farmers, only one having experimented, but the experimental drying kiln at Kizimbani has turned out a product which has been favourably commented on by Arusha exporters. Facilities are being afforded to private owners interested in papain to dry their products at the Kizimbani kiln and to market it through the Clove Growers Association, but so far there has been little response. The falling price of papain, however, holds out little hope for future success with this crop. Derris also is not very attractive to local producers as the care necessary for its establishment and the long period which must elapse between planting and harvesting are considerable drawbacks, in spite of a good demand and the excellent price offered for the final product. Recently three-quarters of a ton of roots have been shipped to the United Kingdom from Kizimbani.

8. The number of chillie seedlings distributed free to cultivators during the period under review amounted to 25,548 in Zanzibar and 144,690 in Pemba. The Clove Growers Association offered a minimum guaranteed price of Shs. 60 per 100 lb. together with an undertaking that any surplus profits would be distributed to growers, and arrangements were made to purchase chillies direct from the producers in the chief growing areas. Local traders, who offer financial and other facilities to the growers, have however purchased practically the whole production at prices slightly higher than those offered by the Clove Growers Association. There is a big demand and a high price for the small type of birdseye chillies, but unfortunately the producer is unwilling to grow this type because of the difficulty of gathering such small fruit, and favours the large chillie, which is easy to grow and harvest but which commands a much smaller price. In general, the progress of chillie production has been most disappointing and it was only after continued propaganda and a promise of a guaranteed minimum price that planters were prepared to accept the seeds at all.

9. Other crops which are being tried out on the demonstration plots are cotton, groundnuts, simsim and suhflower. Among tree crops tung (*Fleurites montana*) and an improved local variety of Kapok should also be mentioned.

10. The manurial experimental programme on food crops has been considerably extended during the past year and in carrying out this work the Agricultural Department is keeping in touch with and are advised by the scientific staff of the East African Agricultural and Forestry Research Organization working on fertilizer problems. Experiments have been laid down in various soil types in several districts in both Zanzibar and Pemba. Results to date indicate that on red soil phosphates are a limiting factor in the growth of crops and it appears that the demand for phosphates can only be satisfied by the application of phosphatic manures of certain types, such as sodaphosphate. On other soils application of humus, nitrogen and lime have sometimes produced very definite responses. The visible effects of some of the manures on the crop's growth have at times been spectacular and in some experiments

yields have been increased by as much as 40–50 per cent over those of the unmanured plots. These experiments are being undertaken concurrently with the work of the Government Chemist, whose investigations into the Protectorate soils for deficiencies of minor elements are being continued. Other experiments are being conducted to find out the fundamental problems of shifting cultivation and regeneration of the east coast karst land. Investigation into the manurial status of our soils by use of microplots, a modern development in field experimentation, is now being closely studied in Zanzibar.

11. In early 1948 ample rice seed and the absence of a heavy clove crop were incentives to cultivators to increase the acreage under rice and it is estimated that 17,000 acres in Zanzibar and 10,200 acres in Pemba were under cultivation. It is estimated the production of paddy in both islands was about 16,380 tons which in terms of white rice amounts to 10,647 tons.

Clove Regeneration.

12. The production of the clove seedlings for sale and free distribution has been continued, and during the 1948 *masika* season 59,710 seedlings were sold; 38,925 in Zanzibar and 20,785 in Pemba. Free issues totalled 98,834 seedlings, of which 85,030 were issued in Zanzibar and 13,804 in Pemba. As in the past the clove seedlings for free issue are being raised with funds provided under the Agricultural Development Scheme and by the Clove Growers Association, while those for sale are raised with Protectorate funds. The take-up of clove seeds by free distribution to owners whose holdings have been ravaged by Sudden Death has been most disappointing and many thousands of seedlings have been wasted both in Zanzibar and Pemba. This can partly be attributed to the shortage of money for planting expenses, but it is clear that the Zanzibar planter is worried as to the future of cloves and is turning towards the coconut as a safer investment.

Copra Production.

13. The available funds to assist copra production have been greatly augmented by grants made by the Copra Cess Fund. During the year coconut nurseries have been established in both islands in order to supply 180,000 seedlings next *masika*. In addtion, masons trained at Kizimbani have been made available to assist copra makers to build kilns of improved type. During the year 45 new kilns have been constructed and 12 old ones repaired in Zanzibar, and good use has been made of expanded metal at cost price and cheap iron rails provided for this purpose.

Afforestation Survey, Anti-Erosion and Utilization of Semi-Wanda Areas.

14. An experienced Forestry Officer has now been appointed and he is examining the best methods of exploiting the mangrove forests, the provision of fuel reserves, afforestation of the *uwanda* country and control of erosion.

15. It appears that practically all of the mangrove trees of suitable size for stripping in Pemba have now been stripped of their bark and it is unlikely that any further exports of bark on a large scale will take place until the forests have been allowed to regenerate. The Forestry Officer is now undertaking a survey of all the mangrove forests with a view to preparing recommendations for the future of the industry.

16. Another problem, which is receiving the attention of the Forestry Officer, is the possibility of economic afforestation of a portion of the extensive *uwanda* areas in Zanzibar. Cutting of the natural forest vegetation for fuel, especially for lime burning, is already causing some concern. A number of species of trees have already been planted for trial at Hanyegwa Mchana. The trials are being extended and will include a number of imported species.

17. A piece of land of 484 acres in Zanzibar Island known as the Jozani Forest has been acquired.

18. At the old Botanical Gardens at Migombani over 10,000 plants consisting of 24 species of fruit trees, 26 of ornamentals and 21 of forest trees were raised. The demand from the public was, however, disappointing. Migombani Gardens will be one source of supply of planting material for afforestation work.

Survey of Cattle Disease.

19. With the appointment of a Veterinary and Livestock Officer a survey has been undertaken of the incidence of trypanosomiasis in Zanzibar Island from funds provided from Colonial Development and Welfare grants. This disease is apparently widespread throughout Zanzibar Island with the exception of Tumbatu, and the survey is being accompanied by intensive remedial treatment with the drug phenenthredinium. At first cattle owners were hesitant but there is no doubt that this work is becoming increasingly popular and very large numbers of cattle have been treated. A cattle census has been commenced in Zanzibar.

Disease Control.

20. There are two main factors in this campaign which is financed from Colonial Development and Welfare funds,

(a) the necessity to provide dips to control east coast fever;

(b) control of tsetse fly.

As regards the former, work has been steadily proceeding, but more dips will be required than originally estimated. The original scheme provided for dips spaced in a radius of five miles but it is the intention eventually that the radii should not exceed 2½ to 3 miles. Dips have been built this year at Hanyegwa Mchana, Mazizini, Kombeni, Bweleo and Fuzi in Zanzibar, and work has commenced at Ole and Vitongoji in Pemba. Compulsory cattle dipping has commenced this year in the Dole Shehia. At present a propaganda campaign is being carried out to enable the local inhabitants to understand the value of dipping. It is apparent there will be stubborn opposition from the public but despite difficulties it is hoped that dipping throughout the whole of the Fumba peninsular will commence before the end of 1948.

21. In the control of tsetse fly considerable assistance is being received from the mainland.

Development of Cattle Industry.

22. During the period under review advances have been recorded in the management of cattle at Kizimbani, milk yields have increased and calf mortality has been reduced. It is not yet possible to record that genetical improvements have also been made in the herd. Rejection of poor cows continues but the early lactations of heifers sired by the original Ngong bull are disappointingly low. As a result this bull has been discarded and a scheme for testing locally bred bulls inaugurated. Funds have been provided from Colonial Development and Welfare grants for the purchase of two new bulls from the Ndurumo herd at Rumuruti in Kenya.

Pasture Improvement.

23. Funds are provided from Colonial and Development Welfare grants for this scheme, and during the period under review new grasses for pasture and for cut fodder, both imported and local selections, are being tested at Kizimbani and Hanyegwa Mchana. Several species are showing considerable promise and are being multiplied on a large scale.

Agricultural Training Course.

24. The one-year training course for young farmers commenced at Kizimbani in January. Four young farmers came from Pemba and three from Zanzibar, while five teachers were sent by the Education Department to take the course. The scheme has been a success so far as the teachers are concerned, but less satisfactory results were obtained with the pupils probably because they were too young.

25. Apart from the schemes which have been financed from Colonial and Development Welfare funds other projects are being expanded of which perhaps the most important is the development of the coir industry. It is considered possible that this industry can be developed to a great extent, and samples of coir ropes and fibre have been sent by the Clove Growers Association to the United Kingdom and a report of their market value is awaited. Information on coir processing machinery has also been obtained with the object of cheapening the costs of producing fibre and developing a much larger export trade.

26. Further improvements to the Mtoni Dairies have been carried out by the Public Works Department.

27. The fencing of the Pigaduri Quarantine Station is in progress in order to avoid the spread of disease from imported animals. Measures are being taken to place the station on a more satisfactory basis.

28. A number of African leaf vegetables mainly grown on sandy soils near Zanzibar have been examined for iron and copper contents in connection with the prevalence of anæmia amongst Africans. In general, iron contents were found to be high whilst copper contents were approximately normal.

HEALTH.

29. The pace of development schemes for the Health Services has been slowed down by staff shortage. With five European Medical Officers less than the establishment it has proved impossible for projects such as the malaria and tuberculosis surveys to be commenced.

30. The Mental Hospital has now been completed with the exception of plumbing and the installation of electric light. It consists of a 60-bed block, a 40-bed block, a 16-bed block, a men's refectory, 10 private wards and dormitory for males; a 16-bed block and women's refectory, and Administration block and kitchen, together with a Superintendent's house.

31. Work has now been commenced on the Mnazi Mmoja block of the Wete Hospital, and in addition two dispensaries have been built in Pemba.

32. Twelve candidates sat for the examination of the Royal Sanitary Institute at the end of August but the results of these examinations have not been confirmed.

EDUCATION.

33. There has been slow but steady expansion in the various Education schemes, the rate of progress being determined by the availability of staff and the cost of maintaining schools. At present the demand for admission to school is greater than can be met.

34. As regards primary education the number of children in Government schools has increased from 4,831 in 1947 to 5,454 in 1948, whilst the number of teachers has been increased from 130 male and 51 female in 1947 to 143 male and 59 female in 1948, but the numbers are still insufficient. A new scheme this year has been the provision of a year's teaching trial at Dole School for aspiring primary school teachers and 19 students have taken part. Those who show promise will be admitted into the Training College. New rural schools have been opened at Gando and Ngambwa in Pemba and new buildings have been erected at Kinyasini, Kangagani and Chake Chake. So far it has been possible only to construct six teachers' houses for primary school teachers and to commence to construct a primary girls' school in Pemba. During the year handicraft has been introduced into all the primary schools in order to making the curriculum more practical. In Pemba, where the first exhibition of the pupils work has been shown recently, the results were encouraging.

35. The number of students admitted into the secondary schools has also increased from 370 boys in 1947 to 412 in 1948. The standard of work in these schools has improved considerably, especially in Science. English still continues to be the weak subject, but every effort is being made to improve it. With the publication of the report of Messrs. Weston and Ellis, Carpentry classes have been started at the Boys' Government Secondary School.

36. Considerable progress has been made in the construction of the Rural Middle School at Beit el-Ras and it is hoped soon to close down the present Rural Middle School at Dole and to transfer it there. Work has also commenced on the new Teacher-Training Block. In addtion 9 teachers' houses have been constructed at Beit el-Ras.

37. As regards technical education more attention is being given to this in both Primary and Secondary education and some apprentices have been taken into the Public Works Department workshops.

38. The main event of the year in regard to higher education has been the launching of the Muslim Institute at Mombasa for which a grant of £100,000 has been received from Colonial Development and Welfare funds, £100,000 from His Highness the Aga Khan and £50,000 from the Government of Kenya.

39. Plans for the buildings have been drawn up and work on the site has commenced.

40. No new students have entered Makerere this year. At present there are twelve students there and nine students in the United Kingdom. Four students have returned to the Protectorate from the United Kingdom having successfully completed their courses. Of these one has obtained the required academic qualifications of an Education Officer.

TOWN IMPROVEMENT.

41. Very good progress can be recorded in Town Improvement, especially in the Ngambo area. Work has commenced on the Kwabijoha and Mwembetanga areas which were very badly eroded and it is no exaggeration to state that these areas have been transformed. Fire-fighting appliances and health carts can now enter. Unfit houses with inside cesspools and drains have been abolished. 82 retaining walls have been built equalling 8,100 cubic feet of masonry. A total area of 25,700 square yards has been retained and levelled bringing into use 8,000 square yards of reclaimed land; 3,800 feet of main and side roads have been drained and levelled. It is possible for vehicle traffic to go to Mwembetanga and Kwabijoha areas via the bridge over the Creek opposite to the Bhaloo Nursing Home and then via Kisimamajongoo Police Station to Mango Avenue. An 8-foot metalled road 3,800 feet in length has been completed, with 1,315 running feet of large and small section cement drains laid in sections to take the storm-water to the Creek. During the period under review expenditure amounted to £1,945 of which 50 per cent is met from Colonial Development and Welfare funds and 50 per cent from Protectorate expenditure.

During the year 153 reception houses, a coffee shop and a general store have been completed at Holmwood, a site on high ground adjoining the town boundaries, and it is to these houses that dispossessed householder go if they so desire pending the reconstruction of their own houses. 44 utility houses have been completed and it is interesting to note that all the materials used in the construction of these houses are local material with the exception of cement. The windows and doors and roofing materials are made and purchased from the local inhabitants from locally grown timber. The construction of these reception and utility houses has provided training for ex-servicemen, who have been employed as bricklayers and carpenters, to build their own houses.

42. Roads have been constructed through to Holmwood, and electric light installed at convenient spots.

43. The Civic Centre at Raha Lea together with the Women's Clinic, the Coffee House and the Post Office were completed in the early part of the year and were placed under the Civic Centre Managing Committee, all of whom are non-Europeans. In addition playground equipment has been installed for the use of children. The auditorium in the main building was leased at the beginning of the year for use as a cinema but it did not prove a success partly because it was not possible to install electric fans through shortage of power.

44. As regards the proposed drainage scheme it was decided that this scheme should go ahead in stages, the first to comprise all works necessary for the filling of the Creek including provision of the main pumping station and outfall pipe to sea. The second section is to comprise those additional works necessary to deal with all effluents now flowing into the sea around the water-front of the Stone Town and with the drainage of public lavatories in Ngambo.

45. During the year preliminary sites for pumping stations have been examined and in some cases new sites have been found and agreed upon with the Consulting Engineers, Messrs Howard Humphreys & Sons, who have been asked to undertake this contract.

46. A partner of this firm has paid a short visit to Zanzibar and he is now preparing estimates of these separate schemes, and after these estimates have been received, it will be necessary to order the requisite machinery. No work can be commenced, until the machinery arrives.

47. The present estimated cost of this scheme, which must be treated as approximate, is £80,000, out of which £65,000 may be raised by means of a loan and £15,000 is to be met from Colonial Development and Welfare funds, the latter being the part of the scheme which provides storm water drainage in the Ngambo area.

SECONDARY ROADS IN PEMBA.

48. Under Scheme D-336 Development of Secondary Roads in Pemba, some progress has been made and a revised programme is under consideration.

RURAL WATER SUPPLIES.

49. A considerable amount of improvement to wells has already been effected by putting on concrete tops to prevent contamination from the surface. At present experiments are being carried on to ascertain where are the best places to dig wells and provide an increased water supply for villages. Estimates have been prepared for pipe supplies in a number of places and further investigations are being carried out in various parts of the island.

Provision under this scheme for 1948 is £1,600 of which £445 has been spent to date.

The following works and estimates have been completed:—

In Zanzibar.

Repairs to wells at Ukongoroni, Charawe and Marumbi and to two wells at Chaani have been completed and a new well has been constructed at Koani under the direction of the District Commissioner.

Well rings have been supplied for repairs to a well at Nyajale.

A new well is in hand at Mkwajuni School.

Estimates have been prepared for Rural Water Supply Schemes at Kipange, Donge, Mkokotoni and Tumbatu.

Repairs to a well at Muyuni have delayed by lack of skilled artizans.

In Pemba.

Eleven new wells have been sunk and one other is being excavated.

Eight old wells have been repaired. This represents an expenditure to date of £116.

SOCIAL SURVEY.

50. This year marked the commencement of the Sociological Survey.

51. In 1947, upon the advice of the Colonial Social Science Research Council His Highness' Government decided to ask Professor Batson to undertake the survey, and a grant of £7,000 upon the basis of an estimate furnished by Professor Batson was approved by the Secretary of State from Colonial Development and Welfare funds; the Protectorate will meet 5 per cent of the cost and the Colonial Development and Welfare grant 95 per cent. The staff is to consist of a Director, a Field Supervisor, two Assistant Field Supervisors, and 24 field Investigators (17 teachers in training, their master, and 6 members of the Administration and Welfare staffs). Clerical assistance will be engaged as required.

52. The Director and the Field Supervisor visited Zanzibar during the year. Their work comprised design of the schedule for the forthcoming survey, the preparation of samples, consultations and plans for collaborative surveys and the preliminary training of the field investigators.

53. The training of the field Investigators was very succesful and only one had to be eliminated as unsuitable.

54. The survey proper is expected to be completed about the 31st March, 1949.

55. Expenditure up to the 31st October amounted to £1,294.

AERODROME.

56. A grant of £67,000 has been allocated this year for improvements to Zanzibar aerodrome. Detailed estimates have been formulated in conjunction with the Director of Civil Aviation of East Africa, and a site plan is at present under consideration by him. An order has been placed for a hangar, and it is hoped that it will be possible to commence work in the near future.

FISHERIES.

57. A scheme is under consideration for the development of local sea fisheries, and in this connection a Fisheries Officer has been appointed but has not yet arrived. It is hoped to construct a fishing vessel locally and a site for a boat-yard has been provisionally selected.

WELFARE SERVICES.

58. The staff has been increased in the Welfare section of the Administration by an African male Welfare Officer and by an Arab female Welfare Officer, the latter is the first non-European lady to embark upon this work and it is hoped her bold lead will be followed by others in the near future.

EXPENDITURE.

59. A statement of the expenditure under the Development Programme from its inception up to the 30th September, 1948, is attached as an appendix to this report.

APPENDIX.

EXPENDITURE UNDER DEVELOPMENT PROGRAMME FROM INCEPTION OF SCHEMES UP TO 30th SEPTEMBER, 1948.

Name and Number of Scheme	Amount of Scheme from C.D. & W.F.	Amount of Scheme from Protectorete Funds	Amount of Expenditure from C.D. & W.F. up to 30-9-48	Amount of Expenditure from Protectorate funds. Balance up to 30-9-48	Balance, C.D. & W.F. on 1-10-48	Balance. Protectorate funds, on 1-10-48
Town Improvement, Scheme D.571A	100,000	230,000	17,040	13,668	82,960	216,332
Education, Scheme D.713	240,000	260,000	37,511	20,254	202,489	239,746
Health, Scheme D.652	150,000	186,400	13,214	13,762	136,786	172,638
Agriculture, Scheme D.647	127,000	...	21,841	...	105,159	...
Clove Research, Scheme R.134A & B	63,500	...	7,864	...	55,636	...
Sociological Survey, Scheme R.225	6,650	350	1,230	64	5,420	286
Development of Secondary Roads in Pemba, Scheme D.336 ...	20,000	...	8,228	...	11,772	...
Improvement of Rural Water Supplies, Scheme D.448	5,500	...	2,206	...	3,294	...
Completion of Civic Centre, Scheme D.331	23,000	...	22,525	...	475	...
Survey of Cattle Diseases, Scheme R.33	3,925	...	1,212	...	2,713	...
Improvement of Zanzibar Aerodrome, Scheme D.917	67,000	...	...	...	67,000	...
Reserve for further economic projects	91,000	...	...	...	91,000	...
GRAND TOTAL ...	897,575	676,750	132,871	47,748	764,704	629,002